



Date: Thursday, March 6, 2014
From: David C. Hoover – President and General Manager
Michigan Broadband Services
To: Marlene H. Dortch – Secretary - Federal Communications Commission
Subject: Expression of Interest – Michigan Broadband Services Rural Broadband
Experiment – WC Docket Number 10-90

Dear Ms. Dortch,

Michigan Broadband Services, the D/B/A for Upper Peninsula Telephone Company and Michigan Central Broadband Company (wholly owned subsidiary) would like to submit this non-binding Expression of Interest in the rural broadband trial in Docket No. 10-90. Michigan Broadband Services is very interested in participating in the Rural CAF Experiment Program to assist in meeting the demand for un/underserved Americans.

Background: Michigan Broadband Services is a wholly owned subsidiary of LICT Corporation (OTC Pink “LICT”) based in Rye, New York. At year-end 2012, LICT reported \$95,140,000 in gross revenues. During the previous 60-month period, LICT recorded over \$75,000,000 in capital investments in its 12 rural operating companies across the United States in the course of broadband deployment. LICT and its subsidiaries, including Michigan Broadband Services, are uniquely positioned, both in financial and construction capabilities, in its continued contributions to rural broadband initiatives in many locations throughout the U.S.

Michigan Broadband Services, LICT’s Michigan operation, is an Eligible Telecommunications Carrier (“ETC”), regulated incumbent rural local exchange carrier (“RLEC”) and a competitive local exchange carrier (“CLEC”) registered with the Federal and State Governments in these capacities. The Company currently serves approximately 5,000 residential, agricultural, commercial and industrial customers in Upper and Northern Lower Michigan. Our service area currently covers in excess of 3,500 square miles. The Company has invested approximately 30 million dollars in its physical plant, which includes approximately 1,200 miles of buried fiber optic cable servicing clients in both regulated and non-regulated areas of Michigan. Other than approximately \$2.2M it currently owes to its parent company, Michigan Broadband has no outstanding construction or operating debt.

While our company currently provides what is considered “high-speed” broadband services, the continuing demand from our clients warrant further investments in network facilities and backhaul interconnections. Historically, our fiber swaps for existing copper facilities to feed distribution points to our subscribers, we spend \$20-30K (higher in some instances) per mile of buried fiber and in excess of \$2,000 per subscriber drop (fiber). With the additional expense of distributing fiber optic cable, Internet access speeds that eclipse 10-20Mbps are not possible without further extensive investments. We serve approximately 2.6 clients per mile.



Expression of Interest Submission from Michigan Broadband Services – Page #2

Our regulated and non-regulated exchanges also border areas served by other carriers that are considered by the FCC to be un/underserved due to the extremely high cost to build in these areas. We envision providing high-speed interconnections to these subscribers that enable them to partake in the delight of high-speed Internet access and the associated applications available now and those yet to be developed in the future. Our CLEC business unit currently located in Delta County, Michigan, with additional funding, is uniquely positioned to build-out higher speed broadband services in the “out of territory” markets listed herein and our regulated business units can further improve those clients currently served.

Michigan Broadband, founded in 1908, has many years of experience with the engineering and construction of copper, fiber and wireless interconnections creating high-speed broadband distribution systems. We are very interested in using our capabilities to deliver improved performance for the “on and off ramps” to the information superhighway as identified by the FCC.

Proposed Technologies: Depending on engineering studies prior to commencement of each project, Michigan Broadband Services would offer a combination of copper, fiber and wireless (unlicensed spectrum using 3.6Ghz and/or 802.11x). Our offerings would include high definition (HD) IP voice and high-speed services with software defined control on broadband data bandwidth. Depending on the method and application used in each area, initial speed offerings could include all speed spectrums depending on the technology deployed in each area we engage. If feasible, Michigan Broadband Services would offer backbone interconnections to larger institutional clients beyond 100Mbps. These service offerings will be priced according to the tiers of service on a monthly fee basis.

Statement of “Successful” Project Elements: As with all successful projects involving broadband connections, once the media is identified, each location engaged would require an in-depth engineering study. Engineering of aggregate and distribution of broadband signaling is the “most important” phase of any successful project of this nature. Engineering practices and procedures, the preamble, typically include the intended route(s), permit and associated fees, environmental surveys, backhaul interconnection points, subscriber distribution systems, facility locating, mapping and staking. When the engineering solution has been identified, the project budget is established and subsequently implemented and installed with project management oversight to insure quality, adherence to regulation, laws and strict adherence to financial budget. When the project is properly planned and executed, positive results are attained. If not, negative results can ensue which may include uncompleted construction and immoderate spending. In summary, all of the risk is identified and systematically eliminated at project inception. Michigan Broadband Services has a long-standing reputation for excellence in our craft and operation of reliable networking systems for the long-term.



Expression of Interest Submission from Michigan Broadband Services – Page #3

Initial Project Areas for this Expression of Interest (capabilities can encompass other areas undefined herein) “The Project”.

- 1. Delta County, Michigan – Tract ID: 26041970100 through 26041970300 & 26041970500 through 26041970700 & 26041970900.**
 - a. 3,007 Eligible High Cost Locations;
 - b. 306 Eligible Extremely High Cost Locations;
 - c. Available Annual Support = \$1,282,504;
 - d. Estimated Cost for Copper Build \$2,981,700;
 - e. Estimated Cost for Fiber Build (FTTx) \$7,951,200;
 - f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)
- 2. Dickenson County, Michigan – Tract ID: 26043950100 through 26043950300.**
 - a. 1,276 Eligible High Cost Locations;
 - b. 188 Eligible Extremely High Cost Locations;
 - c. Available Annual Support = \$503,262;
 - d. Estimated Cost for Copper Build \$1,317,600;
 - e. Estimated Cost for Fiber Build (FTTx) \$3,513,600;
 - f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)
- 3. Gogebic County, Michigan – Tract ID: 26053950100 through 26053950500 & 26053950700.**
 - a. 1,749 Eligible High Cost Locations;
 - b. 246 Eligible Extremely High Cost Locations;
 - c. Available Annual Support = \$685,220;
 - d. Estimated Cost for Copper Build \$1,795,500;
 - e. Estimated Cost for Fiber Build (FTTx) \$4,788,00;
 - f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)
- 4. Iron County, Michigan – Tract ID: 26071000100 through 26071000500**
 - a. 3,201 Eligible High Cost Locations;
 - b. 346 Eligible Extremely High Cost Locations;
 - c. Available Annual Support = \$1,306,394
 - d. Estimated Cost for Copper Build \$3,192,300;
 - e. Estimated Cost for Fiber Build (FTTx) \$8,512,800;
 - f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)



Expression of Interest Submission from Michigan Broadband Services – Page #4

5. Menominee County, Michigan – Tract ID: 26109960100 through 26109960500 & 26109960700.

- a. 3,467 Eligible High Cost Locations;
- b. 324 Eligible Extremely High Cost Locations;
- c. Available Annual Support = \$1,412,124;
- d. Estimated Cost for Copper Build \$3,411,900;
- e. Estimated Cost for Fiber Build (FTTx) \$9,098,400;
- f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)

6. Presque Isle County, Michigan – Tract ID: 26141950100 through 26141950600

- a. 2,603 Eligible High Cost Locations;
- b. 198 Eligible Extremely High Cost Locations;
- c. Available Annual Support = \$1,213,992;
- d. Estimated Cost for Copper Build \$2,520,900;
- e. Estimated Cost for Fiber Build (FTTx) \$6,722,400;
- f. Assumptions: Fiber backhaul interconnections are within 10,560 feet of identified distribution area(s)

Summary of Project Listing:

- 1. Total Counties = 6
- 2. Total Tracts = 33
- 3. Total Combined Locations = 16,911
- 4. Total Annual Funding = \$6,403,595
- 5. Total Estimated Copper Build Costs = \$15,219,900
- 6. Total Estimated Fiber FTTx Build Costs = \$40,586,400

Note on estimated costs: Cost estimations are based on historical data gathered for this submission and are “hypothetical”. Michigan Broadband Services does not consider these estimates as binding to itself or its parent or affiliates. Actual costs shall be determined subsequent to tract mapping and engineering (phase I) of The Project if awarded.



Expression of Interest Submission from Michigan Broadband Services – Page #5

Proposed Funding: As a long-term investment, Michigan Broadband would recommend FTTx in all conceivable areas associated with this Submission. Our assumption on the proposed funding is based on the award of 16,911 combined locations:

- Estimated Fiber Build = \$40,586,400
- Initial Federal funding commitment = \$28,410,480
- Michigan Broadband funding commitment = \$5,479,164
- Federal Funding in three equal annual payments as a commitment (each ending construction period) = \$2,232,252 (*this number multiplied by three*)
- Michigan Broadband Services assumes the costs associated with future operational and maintenance costs of the proposed Project.

Actual monetary commitment dates and amounts for this proposed funding would be determined. Estimates may be higher or lower based on actual locations and build requirements.

Estimated Project Timeline for this Expression of Interest submission: Historically, the areas encompassed in this submission (physical geographical locations) have short construction seasons; approximately 6 months per year. Based on the assumption that Michigan Broadband would be awarded 16,911 locations, we estimate completion of all locations within 3 construction seasons. Michigan Broadband Services would consider a “phased” implementation of the overall Project conducive with availability of funds.

Anticipated Commercial and Residential Use/Features/Benefits of the Proposed Project:

- Streaming and on-demand video;
- High-definition Voice over Internet Protocol;
- Software defined access, telephony and mobility solutions;
- Proposed internal low cost 802.11n Wi-Fi in every location;
- Symmetrical Internet access priced at \$4.00 per megabit/second per month (*additional discounts would apply for requirements over 10Mb/s*);¹
- Special access pricing scenarios for governmental, schools, libraries, tribal and other special interest groups;
- Capability to increase/decrease speed based on need and economical considerations;
- Non-metered access²;

¹ Estimated Internet access costs at time of submission.

² Standard rules may apply for use – local metering implied – but not from the Core Provider.



Expression of Interest Submission from Michigan Broadband Services – Page #6

Contacts with communities, agencies, schools and libraries:

Michigan Broadband Services has contacted and/or is currently working with the following entities:

- Delta County Development Alliance – Vicki Schwab – Director (see attached);
- Connect Michigan – Eric Frederick – Executive Director (see attached);
- Menominee County - Brian Bousley – Administrator;
- Iron County – Sue Clisch – Administrator;
- Gogebic County – Julianne Glackino – Administrator;
- Dickinson County - Nicole Frost – Controller;
- Presque Isle County – Board of Commissioners;
- Over 60 schools and library entities in the Upper Peninsula of Michigan as introduction to potential metro Ethernet opportunities.

In closing this Expression of Interest for The Rural Broadband Experiment: Our family of companies is committed to excellence in our method and application of developing and delivering broadband networks to the communities we serve. We continue to strive to further our internal knowledge base and master new technologies in offering state-of-the-art communication solutions to our clients. We would be delighted to pursue furthering broadband development with available funding from the FCC. With a Michigan Broadband Services solution, network assurance and longevity is built into every project we have completed for over 100 years. We have the connections!

Thank you for your considerations and we look forward to the next step.

For further information please contact:

David Hoover
President and General Manager
Michigan Broadband Services
397 US 41 North
Carney, Michigan 49812
906-639-4500



March 7, 2013

The Honorable Marlene Dortch
Secretary
Federal Communications Commission

**RE: Expression of Interest- FCC Rural Broadband Experiment
WC Docket No. 10-90**

Dear Marlene;

The Delta County Economic Development Alliance (DCEDA) is a private not for profit 501 3 (c) that has been focused on business retention, expansion, and attraction in Delta County for over 20 years. We are located in the beautiful Upper Peninsula of Michigan, a remote and rural landscape where approximately 37,000 people call home. We want to offer our support for the FCC Rural Broadband Experiment and share the opportunity this critical funding offers our rural community.

In 2012 we completed a Technology Action Plan with the help and support of the Connect Michigan Program. Improved broadband access was identified the number 1 issue, need, and opportunity recognized as a result of this study. Consider the following:

- Agriculture is a major economic sector for our community. Our Farmers need reliable broadband coverage to access equipment manuals, soil information, seed planting optimization, research, weather, along with connecting to suppliers and buyers of their produce. The main agriculture census tracts are in Garden, Fairbanks, and Cornell townships. These have been identified to be jointly eligible for \$1.2 million in funding for this project.
- Tourism is another leading economic sector for our community. We have many lodging, camping, snowmobiling golf courses and fishing businesses that do not have an option to provide internet connectivity to their guests. This also impacts the State Parks in our area like Fayette and others. Again, most of these properties are in the identified eligible census tracts for this funding.
- Diverse Manufacturing and exporting is the third leading economic sector for our community. We have manufacturers located in the eligible census tracts that don't have reliable broadband. This is essential to keep them in our community providing meaningful and needed job.
- We still have areas that 911 and emergency services can't be provided. These also happen to be the same areas as identified in the census tracts.

DCEDA is pleased to collaborate with Michigan Broadband in planning, designing, developing, implementing, and evaluating options to achieve improved broadband access, use, and adoption in our area.

Sincerely,

A handwritten signature in black ink that reads "Vicki Schwab".

Vicki Schwab
Director



6546 Mercantile Way, Lansing, Michigan 48911

March 6, 2014

Federal Communications Commission
445 12th St SW
Washington, D.C. 20536

On behalf of Connect Michigan, I am pleased to write in support of Michigan Broadband Services' Expression of Interest, an opportunity for funding through the Commission's Rural Broadband Experiments to deploy next-generation broadband networks and its corresponding benefits within Delta, Dickenson, Gogebic, Iron, Menominee, and Presque Isle Counties, Michigan.

As the leading nonprofit organization focused on the expansion of broadband access, adoption, and use in Michigan since 2009, we have witnessed first-hand the benefits of high-speed Internet access within a community. Unfortunately, broadband access is still devoid in multiple rural counties throughout our state.

The Michigan Broadband Services program described in the Expression of Interest will maximize the impact of the Rural Broadband Experiments by leveraging existing community resources and convening local broadband stakeholders who have been involved in our Connected Community Engagement Program. We can attest through our involvement in the community that deploying robust broadband connectivity in Delta, Dickenson, Gogebic, Iron, Menominee, and Presque Isle Counties will catalyze improvements to economic development, education, healthcare, and overall quality of life provided through community anchor institutions in the region.

I want to express my unequivocal support for the organized effort by Michigan Broadband Services to enhance local broadband networks. These networks will significantly contribute to the state of Michigan, its communities, and residents now and in the future.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric Frederick", is written over a light blue horizontal line.

Eric Frederick, AICP, LEED AP
Executive Director, Connect Michigan